



DEPARTMENT OF PERMITTING, ENVIRONMENT, AND REGULATORY
AFFAIRS (PERA)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION

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Miami, Florida 33175-2474
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www.miamidade.gov/pera

United Solar Ovonic
3800 Lapeer Road
Auburn Hills, MI 48326

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County PERA - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. PERA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: : United Solar Ovonic UNI-SOLAR® PowerMembrane®

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA No. 08-1114.08 and consists of pages 1 through 8.
The submitted documentation was reviewed by Jorge L. Acebo.



NOA No.: 09-1021.08
Expiration Date: 11/17/12
Approval Date: 11/17/11
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ROOFING COMPONENT APPROVAL

Category: Roofing
Sub-Category: Energy Collectors
Material: ETFE Fluoroplastic

SCOPE:

This approves “**United Solar Ovonic UNI-SOLAR® PowerMembrane®**” as auxiliary roof equipment manufactured by United Solar Ovonic, as described in this Notice of Acceptance, designed to comply with the Florida Building Code and the High Velocity Hurricane Zone of the Florida Building Code.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
UNI-SOLAR® PowerMembrane®	10' X 20'	UL 1703	Manufacturer Pre-assembled self-adhering PVL-144 attached to an approved EPDM or TPO single ply membrane to create a removable array of PVL panels. PowerMembranes shall not be assembled in the field. See Limitation #2.
Sure-Seal Reinforced EPDM	Varies	ASTM D 4637	Polyester reinforced EPDM roof membrane.
GenFlex FRM II	Varies	ASTM D 4637	Polyester reinforced EPDM roof membrane.
Firestone Reinforced RubberGard	Varies	ASTM D 4637	Polyester reinforced EPDM roof membrane.
Firestone Ultraply TPO, Firestone Ultraply TPO XR	Varies	TAS 131	Polyester reinforced ThermoPlastic Olefin single ply membrane.
GenFlex TPO, GenFlex TPO Plus	Varies	TAS 131	Polyester reinforced ThermoPlastic Olefin single ply membrane.
Sure-Seal Pressure Sensitive SecurTape	6" wide rolls		Adhesive tape manufactured with a clear poly film used in EPDM installations.

EVIDENCE SUBMITTED

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
Factory Mutual Research Corporation	3031106	4470	11/13/07
Underwriters Laboratories Inc.	02NK22919	UL1703	07/02/02
Trinity ERD	U11120.08.08-R2	TAS 114(H)	04/21/09
	U12640.03.09	TAS 114(H)	03/10/09
	U13340.07.09-1	TAS 114 (J)	06/08/09
	U30090.09.09-1	TAS 114 (J)	09/22/09
	U31430.12.09	TAS 114(H)	12/04/09
	U33270.11.10	ASTM G 155	12/08/10
		ASTM D 638	
		ASTM D 903	
		FM 4470 (5.5)	



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MANUFACTURING LOCATIONS:

1. Tijuana, Baja California, Mexico

BUILDING PERMIT REQUIREMENTS:

1. Any other documents required by the Building Official or applicable Building Code in order to properly evaluate the installation of this system.

PHYSICAL PROPERTIES OF COMPONENTS

Trade name: **UNI-SOLAR® PowerMembrane®**

Specifications: UL 1703

Description: Manufacturer Pre-assembled UNI-SOLAR® Photovoltaic Laminate (PVL-144) Modules attached to an approved EPDM or TPO single ply membrane to create a removable array of four (4) to six (6) PVL panels that may be applied onto:

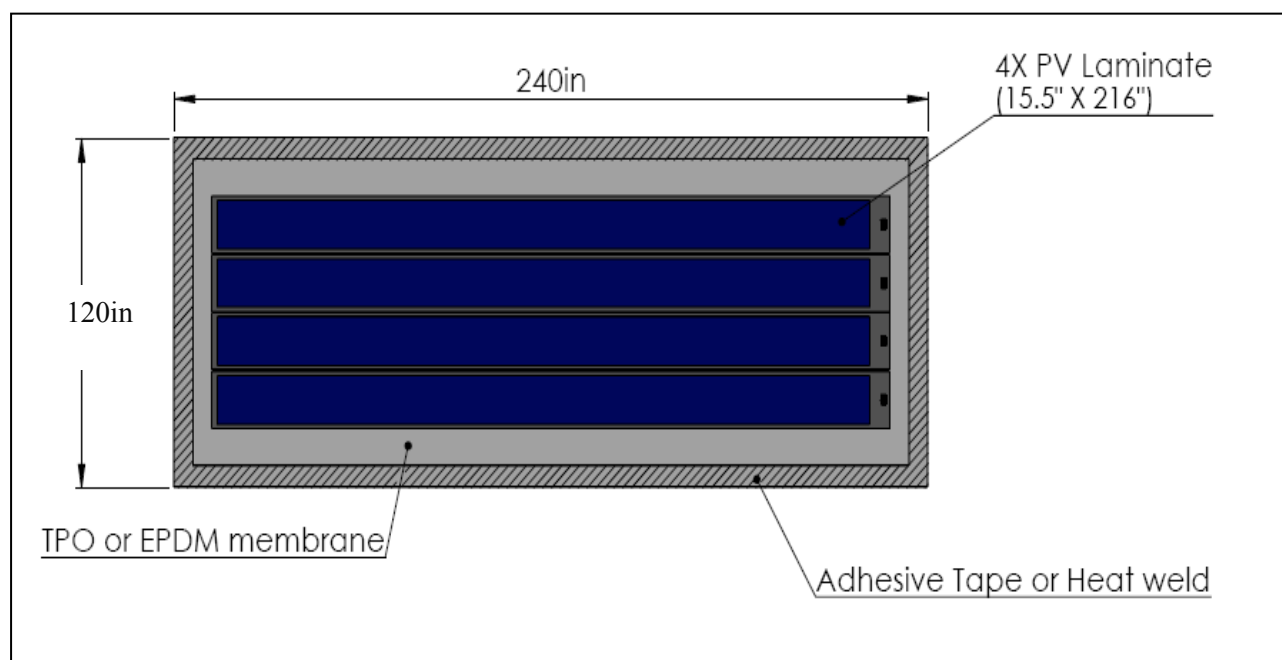
- Primed APP Granule Surfaced Membranes
- Primed SBS Granule Surfaced Membranes
- Primed EPDM Membranes
- TPO Membranes

Systems Approvals: Installation of the PowerMembrane shall comply with Uni-Solar specific product installation specifications with the limitations specified herein. PowerMembrane shall be installed only on approved Uni-Solar substrates as specified above and that have a valid Miami-Dade NOA approval..

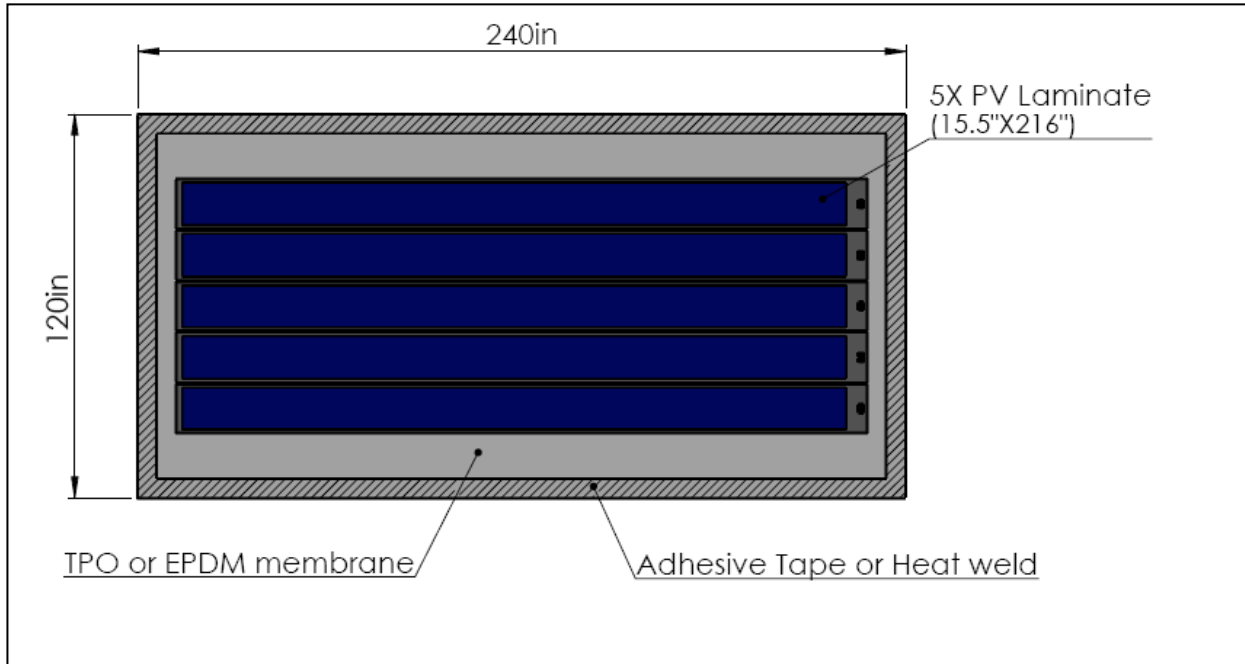
PowerMembranes shall not to be assembled in the field. See Limitation #2.

Uni-Solar PowerMembrane Configurations

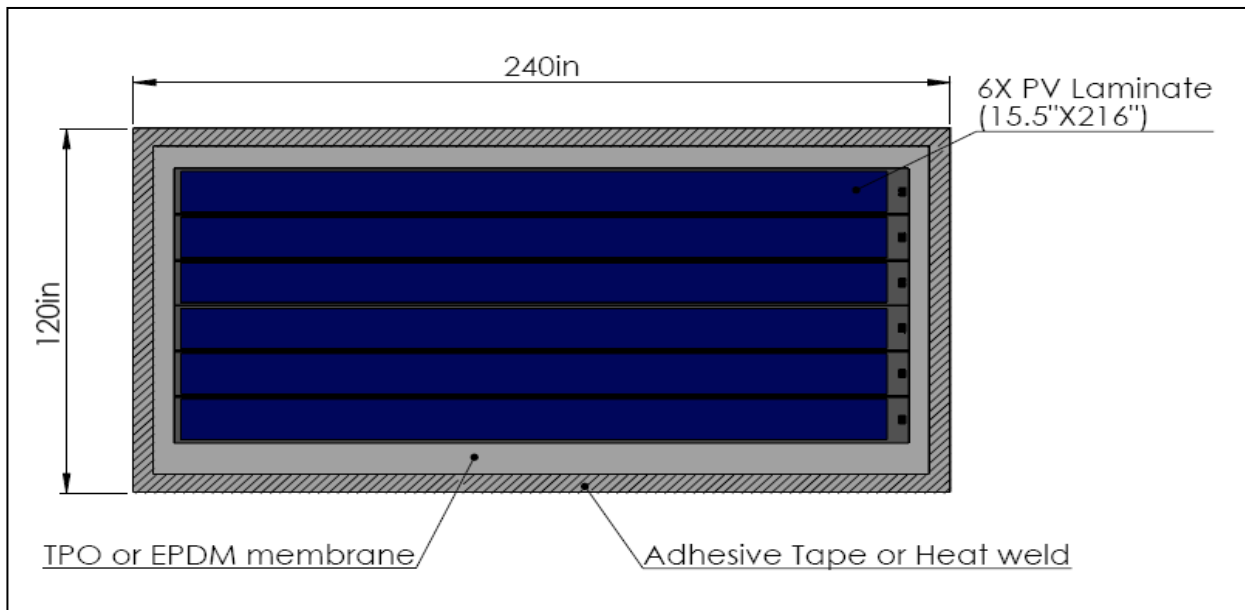
4-Laminate Configuration



5-Laminate Configuration



6-Laminate Configuration



INSTALLATION:

Roof System Types:	EPDM, TPO & SBS / APP Modified-Bitumen
Deck Description:	Minimum 22 ga. steel deck, type B secured to supports spaced at 72" o.c. using Tek 5 fasteners spaced at 6" o.c. with side laps secured with ICH Traxx/1 screws spaced 6" o.c.
Roofing System Options:	Any fully adhered TPO, primed EPDM, primed SBS or primed APP Granule Surfaced roof systems with a Maximum Design Pressure rating equal to or greater than the listed maximum component design pressure below.
UNI-SOLAR® PowerMembrane® Single Ply Membrane Options:	Carlisle Sure-Seal Reinforced EPDM, GenFlex FRM II, Firestone Reinforced RubberGard. Or Firestone Ultraply TPO, Firestone Ultraply TPO XR, GenFlex TPO, GenFlex TPO Plus.
UNI-SOLAR® PowerMembrane® Installation Options:	Option #1 The entire perimeter of the UNI-SOLAR® PowerMembrane® is adhered* to the roof cover using the 6" wide Sure-Seal Pressure Sensitive SecurTape or SikaLastomer-68 or Firestone QuickSeam Splice Tape. (See Footnotes*)

* EPDM Roof Systems only: the top of EPDM roofing membrane is initially primed using 2001 Talc Eater III or Firestone QuickPrime Plus, as directed by the primer manufacturer, prior to the application of the SecurTape.

* SBS or APP Modified-Bitumen Roof Systems only: the top of SBS or APP Modified-Bitumen roofing membrane is initially primed using CIM 162, as directed by the primer manufacturer, prior to the application of the SecurTape.

* TPO Roof Systems should be cleaned according to the membrane manufacturer's instructions prior to application of the SecurTape.

Option #2 (TPO Only)

When installing the UNI-SOLAR® PowerMembrane® module with the TPO membrane onto TPO roofing membranes: The entire perimeter of the UNI-SOLAR® PowerMembrane® may be heat-welded around the entire perimeter with a minimum 2" wide heat weld.

**Maximum Component
Design Pressure:** -67.5 psf
PowerMembranes shall not to be assembled in the field. See Limitation #2.



Roof System Types:	EPDM, TPO
Deck Description:	Minimum 22 ga., type B, Grade 80 steel deck secured to supports spaced at 72" o.c. using Tek 5 fasteners spaced at 6" o.c. with side laps secured with ICH Traxx/1 screws spaced 6" o.c.
Roofing System Options:	Any mechanically attached EPDM or TPO roof systems with a Maximum Design Pressure rating equal to or greater than the listed maximum component design pressure below
UNI-SOLAR® PowerMembrane® Single Ply Membrane Options:	Carlisle Sure-Seal Reinforced EPDM, GenFlex FRM II, Firestone Reinforced RubberGard. Or Firestone Ultraply TPO, Firestone Ultraply TPO XR, GenFlex TPO, GenFlex TPO Plus.
UNI-SOLAR® PowerMembrane® Installation Options:	<p><i>Option #1 (EPDM only)</i></p> <p>The entire perimeter of the EPDM UNI-SOLAR® PowerMembrane® is adhered to the roof cover using the 6" wide Firestone QuickSeam Splice Tape.</p> <p><i>Option #2 (TPO Only)</i></p> <p>When installing the UNI-SOLAR® PowerMembrane® module with the TPO membrane onto TPO roofing membranes: The entire perimeter of the UNI-SOLAR® PowerMembrane® may be heat-welded around the entire perimeter with a minimum 2" wide heat weld.</p>
Maximum Component Design Pressure:	-67.5 psf
PowerMembranes shall not to be assembled in the field. See Limitation #2.	

Roof System Types:	EPDM, TPO & SBS / APP Modified-Bitumen
Deck Description:	Min. 2500 psi structural concrete.
Roofing System Options:	Any fully adhered, primed EPDM or TPO or primed SBS or primed APP Granule Surfaced roof system with a Maximum Design Pressure equal to or greater than the listed maximum component design pressure below.
UNI-SOLAR[®] PowerMembrane[®] Single Ply Membrane Options:	Carlisle Sure-Seal Reinforced EPDM, GenFlex FRM II, Firestone Reinforced RubberGard Or Firestone Ultraply TPO, Firestone Ultraply TPO XR, GenFlex TPO, GenFlex TPO Plus
UNI-SOLAR[®] PowerMembrane[®] Installation Options:	Option #1 The entire perimeter of the UNI-SOLAR [®] PowerMembrane [®] is adhered* to the roof cover using the 6" wide Sure-Seal Pressure Sensitive SecurTape or SikaLastomer-68 or Firestone QuickSeam Splice Tape. (See Footnotes*)

*EPDM Roof Systems only: the top of EPDM roofing membrane is initially primed using Firestone QuickPrime Plus, as directed by the primer manufacturer, prior to the application of the QuickSeam Splice Tape. SikaLastomer-68[®] adhesive tape does not require a primer.

* SBS or APP Modified-Bitumen Roof Systems only: the top of SBS or APP Modified-Bitumen roofing membrane is initially primed using CIM 162, as directed by the primer manufacturer, prior to the application of the SecurTape.

* TPO Roof Systems should be cleaned according to the membrane manufacturer's instructions prior to application of the SecurTape.

Option #2 (TPO Only)

When installing the UNI-SOLAR[®] PowerMembrane[®] module with the TPO membrane onto TPO roofing membranes: The entire perimeter of the UNI-SOLAR[®] PowerMembrane[®] may be heat-welded around the entire perimeter with a minimum 2" wide heat weld.

Maximum Component Design Pressure: -135.0 psf
PowerMembranes shall not to be assembled in the field. See Limitation #2.

LIMITATIONS:

1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire rating of this product.
2. UNI-SOLAR® PowerMembrane® shall not be assembled in the field; it must be pre-assembled in the factory by Uni-Solar or an authorized secondary manufacturer.
3. UNI-SOLAR® PowerMembrane® shall not be applied in inclement weather conditions.
4. Only install UNI-SOLAR® PowerMembrane® to roofing substrates approved by Uni-Solar and specified in the NOA
5. All projects have to be reviewed and approved by Uni-Solar before installation begins. Any defects in the roofing substrates shall be corrected by contractor.
6. UNI-SOLAR® PowerMembrane® shall be properly labeled for manufacturing traceability.
7. The photovoltaic system described within this Notice Of Acceptance document shall be installed by licensed roofing contractor holding an applicator's certificate from Unisolar, the manufacturer, holding the the product approval for the photovoltaic system. A copy of the certification shall be provided to the building official during the application for for a building permit. Submission of these documents, as well as the proper application and installation of all materials shall be the sole responsibility of the contractor
8. Any installation defect is the sole responsibility of the contractor. Uni-Solar shall not be held liable for any defects resulted from poor workmanship of the installation.
9. All electrical components and wiring installations shall be in compliance with applicable Building Code Requirements.
10. Location of installation is limited to the areas within the roof system that provides adequate drainage and does not pond water.
11. UNI-SOLAR® PowerMembrane® shall not be installed in areas where drains or roof penetrations exist.
12. Location of installation is limited to the area of roof where wind uplift does not exceed the maximum component design pressure of the UNI-SOLAR® PowerMembrane®.
13. All products listed herein shall have an unannounced follow-up quality control program from an approved listing agency. Follow up test results shall be made available to Miami-Dade Product Control upon request.
14. Change in materials, use, or manufacture of any of the products listed herein shall be cause for termination of the NOA.
15. UNI-SOLAR® PowerMembrane® shall be applied in strict accordance with manufacturer's published application instructions and with the conditions and limitations specified herein.
16. UNI-SOLAR® PowerMembrane® may be used with any approved roof covering NOA listing UNI-SOLAR® PowerMembrane® as a componoent part of an assembly in the NOA. If the UNI-SOLAR® PowerMembrane® is not listed, a request may be made to the AHJ or the Miami-Dade County Product Control Department for approval provided that the appropriate documentation is provided to detail compatability of the products, wind uplift resistance and fire testing results.
17. All approved products listed herein shall have quality assurance audit in accordance with the Florida Building Code Rule 9B-72 of the Florida Administrative Code.
18. All approved products listed herein shall bear the imprint or identifiable marking of the manufacturer's name or logo and following statement: "Miami-Dade County Product Control Approved" or the Miami-Dade County Product Control Seal as shown below.

MIAMI-DADE COUNTY
APPROVED

END OF THIS ACCEPTANCE

MIAMI-DADE COUNTY
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